Atty Docket: 7112-004US/PCT

## **CLAIMS:**

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- 1. A medication delivery system for oral hygiene comprising;
- a) a cotton roll of size and length to be received comfortably in a buccal vestibule; and
- b) a treatment composition carried by said roll in an amount to be therapeutically effective to treat adverse periodontal conditions.
- 2. A medication delivery system for oral hygiene as in claim 1 wherein said medication is in a state selected from a liquid, a gel and a dry state.
- 3. A medication delivery system for oral hygiene as in claim 2 wherein said composition is selected from an anti-microbial compound or composition, a fluoride-ion providing compound or composition, an analgesic, an enzyme, a natural plant herb, oil or extract, an anti-plaque compound or composition, and combinations thereof.
- 3. A medication delivery system for oral hygiene as in claim 3 wherein said composition is an anti-microbial present in said roll in an effective amount for amelioration of bad breath conditions.
- 4. A medication delivery system for oral hygiene as in claim 3 wherein said composition is a fluid and said fluid is present in an amount sufficient to substantially moisten or to saturate said cotton roll.
- 5. A medication delivery system for oral hygiene as in claim 3 wherein said composition includes at least one active ingredient selected from a boric acid-type and a benzoic acid-type mouthwash.
- 6. A medication delivery system for oral hygiene as in claim 3 wherein said composition includes at least one active ingredient selected from: thymol; eucalyptol; methyl salicylate; menthol; ethyl alcohol; benzoic acid; sodium benzoate; boric acid; citric acid; calcium lactate; cetyl pyridinium chloride; tetrasodium pyrophosphate; benzalkonium chloride; domiphen bromide; sodium benzoate; euginol; eucalyptus oil; aloe vera; oil of cloves; triclosan; chlorhexidine; chlorhexidine gluconate; sodium hypochlorite; sodium stannate; hydrogen peroxide; carbamide peroxide; anti-biotics; analgesics; chlorine dioxide; zinc-containing compounds and complexes such as zinc gluconate or zinc chloride; fluoride ion-providing compounds such as sodium fluoride; enzymes and enzymatic compounds selected from lysozyme, lactoferrin, glucose oxidase, lactoper-oxidase, and the like; copper gluconate; natural plant extracts having anti-microbial or therapeutic properties; and mixtures thereof.
- 7. A medication delivery system for oral hygiene as in claim 2 wherein said cotton roll has a diameter ranging from about 3/16" to 7/16" and length ranging from about 1" to about 2".
  - 8. A medication delivery system for oral hygiene as in claim 7 wherein said cotton roll

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includes a core of absorbent cotton fibers and a sheath selected from a mesh braiding and a highly permeable woven or non-woven sheet material.

- 9. A medication delivery system for oral hygiene as in claim 8 wherein said cotton roll is a braided cotton roll having a diameter of about 5/16" and length of about 1 ½", and each end is terminated in a transverse cut.
- 10. A portable consumer package for oral hygiene treatment comprising in operative combination:
  - a) a sealed, water impervious re-closable pouch; and
- b) a plurality of single use medication delivery units disposed in said pouch, each of which comprises:
  - i) a sterile cotton roll of size and length to be received comfortably in a buccal vestibule; and
  - ii) a composition carried by said roll in an amount to be therapeutically effective to treat adverse periodontal conditions.
  - 11. A portable consumer package for oral hygiene treatment as in claim 10 wherein said pouch is pocket-sized and includes a manually openable seal member.
  - 12. A portable consumer package for oral hygiene treatment as in claim 11 wherein said seal member is a tear off strip and a zip-type closure permits re-closing said pouch.
  - 13. A portable consumer package for oral hygiene treatment as in claim 11 which contains from 2 to 4 of said cotton rolls and wherein said composition is selected from an antimicrobial compound or composition, a fluoride-ion providing compound or composition, an analgesic, an enzyme, a natural plant herb, oil or extract, an anti-plaque compound or composition, and combinations thereof.
  - 14. A portable consumer package for oral hygiene treatment as in claim 13 wherein said composition is a fluid and said fluid is present in an amount sufficient to substantially moisten or to saturate said cotton roll, said pouch ranges in width from about 1.75" to about 2.25" and in length from about  $2-2\frac{1}{2}$ " and each said cotton rolls has a diameter ranging from about 3/16" to 7/16", a length ranging from about 1" to about 2", a core of absorbent cotton fibers and a sheath selected from a mesh braiding and a highly permeable woven or non-woven sheet material.
  - 15. A portable consumer package for oral hygiene treatment as in claim 10 wherein a plurality of said pouches are packaged in a box.
    - 16. A method of oral hygiene care comprising the steps of:
      - a) providing a single-use sterile cotton roll of size and length to be received

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comfortably in a buccal vestibule and having a treatment composition carried by said roll in an amount to be therapeutically effective to treat adverse periodontal conditions;

- b) inserting a said treatment composition-carrying roll in a buccal vestibule for a time sufficient to provide some amelioration of said periodontal condition; and
- c) removing and disposing of said single use cotton roll after sub-stantial leaching-out of said treatment composition to the oral tissue.
- 17. A method of oral hygiene treatment as in claim 16 wherein said composition is in a state selected from a liquid, a gel and a dry state.
- 18. A method of oral hygiene treatment as in claim 17 wherein said composition is selected from an anti-microbial compound or composition, a fluoride ion-providing compound or composition, an analgesic, an enzyme, a natural plant herb or extract, an anti-plaque compound or composition, and combinations thereof.
- 19. A method of oral hygiene treatment as in claim 18 said composition includes at least one active ingredient selected from: thymol; eucalyptol; aloe vera; methyl salicylate; menthol; ethyl alcohol; benzoic acid; sodium benzoate; boric acid; citric acid; calcium lactate; cetyl pyridinium chloride; tetrasodium pyrophosphate; benzalkonium chloride; domiphen bromide; sodium benzoate; euginol; eucalyptus oil; oil of cloves; triclosan; chlorhexidine; chlorhexidine gluconate; sodium hypochlorite; sodium stannate; hydrogen peroxide; carbamide peroxide; antibiotics; analgesics; chlorine dioxide; zinc-containing compounds and complexes such as zinc gluconate or zinc chloride; fluoride ion-providing compounds such as sodium fluoride; enzymes and enzymatic compounds selected from lysozyme, lactoferrin, glucose oxidase, lactoperoxidase, and the like; copper gluconate; natural plant extracts having anti-microbial or therapeutic properties; and mixtures thereof.
- 20. A method of oral hygiene treatment as in claim 16 wherein said composition is a fluid or gel present in an amount sufficient to substantially moisten or to saturate said cotton roll, and each said cotton roll has a diameter ranging from about 3/16" to 7/16", a length ranging from about 1" to about 2", a core of absorbent cotton fibers and a fiber-retaining sheath selected from a mesh braiding and a highly permeable woven or non-woven sheet material.

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